
Changes to the Best Mode Requirement: Weakening Enforcement Undermines the Purpose of Patent Law and Exacerbates an Ethical Patent Trilema

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INTRODUCTION

The best mode requirement has been a unique aspect of United States patent law since the mid-nineteenth century.¹ The requirement, currently found in 35 U.S.C. § 112, mandates that patent specifications “set forth the best mode contemplated by the inventor of carrying out his invention.”² Many legal scholars have critiqued the best mode requirement,³ while others have supported its imposition.⁴ Practitioners in the latter camp view the requirement as a useful tool for invalidating an entire patent,⁵ but now the Leahy-Smith America Invents Act (“AIA”) has fundamentally altered the way the best mode requirement is enforced.

Congress introduced the AIA in 2011 as a comprehensive overhaul of many patent law statutes.⁶ Significant changes to fundamental tenets of patent law included switching from a first-to-invent filing system to the more harmonious first-inventor-to-file system,⁷ allowing third party post-grant opposition hearings to patent applications,⁸ and fundamentally weakening the best mode requirement by removing the ability to invalidate

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1. See generally Ryan Vacca, *Patent Reform and Best Mode: A Signal to the Patent Office or a Step Toward Elimination?*, 75 ALB. L. REV. 279, 281–84 (2012).

2. 35 U.S.C. § 112 (2006).

3. See Vacca *supra* note 1, at 287–90.

4. See Jerry R. Selinger, *In Defense of “Best Mode”: Preserving the Benefit of the Bargain for the Public*, 43 CATH. U. L. REV. 1071 (1994).

5. See generally Steven B. Walmsley, *Best Mode: A Plea to Repair or Sacrifice This Broken Requirement of United States Patent Law*, 9 MICH. TELECOMM. & TECH. L. REV. 125–26 (2002).

6. Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284 (2011) (codified in scattered sections of 35 U.S.C.).

7. *Id.* sec 3.

8. *Id.* sec. 6(d), §§ 321–329.

a patent as a consequence of non-compliance.⁹ This last change poses a very serious problem for many industries that rely on adherence to precise methodologies to create or implement an invention.

The pharmaceutical industry is particularly susceptible to the problems stemming from inventors who fail to disclose their best modes.¹⁰ For example, Section 112 enablement requirements may be achieved by disclosing approximations for elements like temperature, molecular composition, concentrations, and reactive agents. Inventors could disclose these elements as approximations or ranges that teach a person having ordinary skill in the art how to make a comparable compound. However, the disclosure might not teach the invention well enough to produce a medicinal compound without the cost-prohibitive burden of further development and/or experimentation. By not providing the exact best mode, patentees will force competitors to spend more time and money to come up with a compound that does the same thing with the same efficacy.

The AIA's removal of broad patent invalidity as a consequence of not disclosing the best mode presents prosecuting attorneys with a dilemma: disclose the best mode to the USPTO as required, or keep the best mode a secret to further the client's best interests.¹¹ This statute-made conflict of interest creates an ethical concern for the prosecuting attorney who must provide the best representation to his client while simultaneously making a disclosure that will weaken protection of his client's intellectual property rights. In this paper, I discuss the inherent ethical "Patent Trilemma," that is exacerbated by the AIA's new enforcement of the best mode requirement; compare the "Patent Trilemma" to the "Perjury Trilemma" discussed by Professor Monroe H. Freedman in his work *Understanding Lawyers' Ethics*;¹² and explain why the enforcement of the best mode requirement should be reinstated.

Specifically, Part I reviews the history of the best mode requirement, from its early introduction in the nineteenth century to its formal statutory recognition in the 1952 Patent Act. Part I also examines the rationale and support for the best mode requirement since its statutory introduction in the 1952 Patent Act. Part II compares the statutory language of the 1952 Patent Act best mode requirement with the newly-altered language found in the AIA, focusing on how the AIA weakens the requirement and the legislature's rationale for implementing the change. Part III discusses practical and ethical problems created by the lack of best mode enforcement and explains why Congress should reinstate the requirement as it was before the AIA.

9. *Id.* § 15.

10. See generally Scott D. Locke, *Nucleotide Sequences and Recombinant Technologies: Trends in the Application of the Written Description Requirement to Inventions From the Biotechnology Industry*, 22 ALB. L.J. SCI. & TECH. 49, 54 (2012).

11. See H.R. 1249, 112th Cong. §§ 15(a), (c) (1st Sess. 2011) (amending 35 U.S.C. § 282 (2006)).

12. See MONROE H. FREEDMAN, *UNDERSTANDING LAWYERS' ETHICS*, 159–94 (3rd ed. 2004).

I. HISTORY OF THE BEST MODE REQUIREMENT

A. THE NINETEENTH CENTURY INTRODUCTION OF BEST MODE

Even though the Patent Act of 1790 was the first form of patent legislation in the United States,¹³ the “best mode,” however, was not mentioned in a patent statute until the Patent Act of 1870.¹⁴ In the case of a machine patent, the Patent Act of 1870 required the applicant to “explain the principle hereof, and the best mode in which he has contemplated applying that principle so as to distinguish it from other inventions.”¹⁵ This initial best mode requirement only applied to innovative machine inventions,¹⁶ but the formal statutory declaration laid the groundwork for the modern version of the best mode requirement, which applies to all types of inventions.

In conjunction with the imbedded best mode requirement, the enablement requirement set forth in the 1870 Patent Act stated:

[An inventor] shall file in the patent office a written description of the [invention], and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same¹⁷

Additionally, the 1870 Act kept the earlier “whole truth defense,” which formed the early backbone for the best mode requirement.¹⁸ The statute provided:

In any action for infringement the defendant may plead the general issue, and . . . may prove . . . any one or more of the following special matters:

“First. That for the purpose of deceiving the public the description and specification filed by the patentee in the Patent Office was made to contain less than the whole truth relative to his invention or discovery, or more than is necessary to produce the desired effect”¹⁹

B. BEST MODE IN THE 1952 PATENT ACT

In 1952, Congress significantly re-tooled patent law in the United States. The 1952 Patent Act²⁰ introduced the modern statutory interpretation of the best mode requirement, later codified in 35 U.S.C. § 112. Section 112 states in relevant part:

13. Patent Act of 1790, ch. 7, 1 Stat. 109 (repealed 1793).

14. Patent Act of 1870, sec. 26, 16 Stat. 198–201, 201 (1870) (revised by Patent Act of 1952, ch. 950, 66 Stat. 792 (codified as amended in scattered sections of 35 U.S.C.)).

15. *Id.* sec. 26, 16 Stat. at 201.

16. *Id.*

17. *Id.*

18. *Id.* sec. 61, 16 Stat. at 208.

19. *Id.*

20. Patent Act of 1952, Pub. L. No. 82–593, 66 Stat. 792 (codified at 35 U.S.C. § 112 (2006)).

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and *shall set forth the best mode contemplated by the inventor of carrying out his invention.*²¹

The 1952 Patent Act combined both the enablement and best mode obligations into the single 35 U.S.C. § 112 statute and directed that a failure to comply with the best mode obligation would lead to overall patent invalidity.²² Even though the 1952 Patent Act did not seriously change the underlying enablement requirement that formed the bedrock of establishing patentability, it did specifically modify the best mode in two ways. First, the 1952 Patent Act expanded best mode beyond machine inventions to include patent applications for any new, useful, and non-obvious invention.²³ Second, the new form of best mode under the Act removed the older “whole truth defense.”²⁴

The difference between the best mode and enablement requirements became more distinct after the judiciary had an opportunity to interpret the new changes. The United States Court of Customs and Patent Appeals (“CCPA”) scrutinized the 1952 Patent Act best mode requirement in one decision and concluded that enablement and best mode disclosures were separate and distinct obligations.²⁵

In the 1962 case of *In re Gay*, the CCPA definitively determined that the best mode and enablement requirements were distinct.²⁶ *In re Gay* was an appeal from a Patent Office Board of Appeals decision affirming the rejection of multiple claims in a utility application.²⁷ The invention at issue was a perforated bag that “permits the uniform cooking of fluffy rice . . . by inexperienced or unskilled persons.”²⁸ The lower Patent Office Board of Appeals rejected the claims based on two factors: First, that the term “substantially non-porous” was “new matter” improperly added to the written description and the claims after the application had been filed.²⁹ The CCPA countered this initial rejection by observing “that as originally filed, appellant’s specification would have indicated to one skilled in the art that all suggested container materials were to be substantially non-porous.”³⁰

The second factor that the Board of Appeals focused on in rejecting

21. 35 U.S.C. § 112 (emphasis added).

22. See 35 U.S.C. §§112, 282.

23. See *In re Honn*, 364 F.2d 454, 461 n.7 (C.C.P.A. 1966) (“[T]he requirement for disclosing the best mode of carrying out the invention is stated as generally applicable to all types of invention.”).

24. See DONALD S. CHISUM, CHISUM ON PATENTS § 7.05 (2012).

25. *In re Gay*, 309 F.2d 769, 772 (C.C.P.A. 1962).

26. *Id.*

27. *Id.* at 769.

28. *Id.* at 769–70.

29. *Id.* at 770.

30. *Id.* at 771.

the claims was that the written description did not completely describe “a specific embodiment of the package on which appellant predicates patentability.”³¹ The CCPA found that the Board of Appeals confused the two requirements in the first paragraph of 35 U.S.C. § 112 and explained:

The essence of [the enablement requirement] is that a specification shall disclose an invention in such a manner as will enable one skilled in the art to make and utilize it. Separate and distinct from [the enablement requirement] is [the best mode requirement], the essence of which requires an inventor to disclose the best mode contemplated by him, as of the time he executes the application, of carrying out his invention. Manifestly, the sole purpose of this latter requirement is to restrain inventors from applying for patents while at the same time concealing from the public preferred embodiments of their inventions which they have in fact conceived. . . . *The question of whether an inventor has or has not disclosed what he feels is his best mode is, however, a question separate and distinct from the question of the sufficiency of his disclosure to satisfy the [enablement requirement] of section 112*³²

This case clearly divided the best mode requirement and the broader enablement requirement in Section 112 and made best mode a separate and important consideration for patent prosecutors.

C. BEST MODE IN THE FEDERAL CIRCUIT

After the establishment of the Federal Circuit Court of Appeals (“Federal Circuit”) in 1982, the best mode requirement was upheld in many cases as a separate obligation. The Federal Circuit indicated that the requirement must be met in order to validate the patentability of any invention and that failure to satisfy the requirement was reasonable grounds for invalidating the whole patent. One of the most-cited Federal Circuit cases of invalidation under the best mode requirement occurred in 1987.

In *Spectra-Physics, Inc. v. Coherent, Inc.*,³³ the Federal Circuit determined that if the inventor knew a better way of creating the claimed invention at the time of filing, then the inventor must disclose that technique or method (the best mode requirement) in addition to satisfying the enablement requirement.³⁴ *Spectra-Physics* dealt with a claim relating to a type of copper welding flux used to adhere a heat-spreading component to a medical laser.³⁵ The heat spreader improved laser cooling by allowing for more open-air exposure on the heated surface area.³⁶ Since

31. *In re Gay*, 309 F.2d 769, 772 (C.C.P.A. 1962).

32. *Id.* (emphasis added).

33. *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524 (Fed. Cir. 1987).

34. *See id.* at 1532 (“[C]ompliance with the best mode requirement focuses on a different matter than does compliance with the enablement requirement. Enablement looks to placing the subject matter of the claims generally in the possession of the public. If, however, the applicant develops specific instrumentalities or techniques which are recognized at the time of filing as the best way of carrying out the invention, then the best mode requirement imposes an obligation to disclose that information to the public as well.”).

35. *See generally id.* at 1527–31.

36. *See id.* at 1530.

the underlying bonding agent used to adhere the heat spreader to the laser tube contacted both elements, it needed to conduct heat effectively. When describing the bonding agent, the prosecuting attorney only disclosed a standard copper flux from a metallurgical handbook as a bonding agent that could be used to connect a laser with a heat spreader.³⁷ However, the inventor had actually developed a complex six-stage brazing method utilizing a unique type of moly-manganese adhesion process between the two parts, which conducted heat far more effectively than the disclosed copper flux.³⁸ The Federal Circuit declared that even though the given declaration enabled the invention, the best mode was not properly disclosed, and therefore the patents at issue were invalidated overall.³⁹

A few years later, in the 1990 case of *Northern Telecom, Inc. v. Datapoint Corp.*, the Federal Circuit again considered the best mode requirement.⁴⁰ The patent under fire (U.S. Patent No. 3,760,375) related to “a mode of ‘batch processing’ of data.”⁴¹ After the alleged infringer asserted invalidity defenses under Sections 102 and 103, the lower court invalidated a claim group for failure to disclose the best type of magnetic recording tape for data storage.⁴²

The Federal Circuit found that the invention used “magnetic tape cassettes of the general type presently finding extensive and widespread usage in audio entertainment equipment, but never heretofore used in data-handling apparatus.”⁴³ However, the court subsequently determined that the inventor “knew in advance of filing the patent application, that standard audio tape was not the best mode for carrying out the invention”⁴⁴ based on the testimony of a prior employee. Instead of utilizing the standard commercially available magnetic tape, the inventor “purchased tape and cassettes of its own design and specifications,”⁴⁵ which differed in yield strength and magnetic characteristics.⁴⁶ This specific type of recording cassette was considered the best mode for practicing the invention, even though comparable tapes manufactured by 3M were widely available. The Federal Circuit concluded that since the specification did not disclose either the specially designed tapes or the commercially available 3M tapes, the underlying patent was invalid. The court indicated that simply because there were commercially available alternatives for magnetic tapes that

37. *Id.* at 1536.

38. *Id.* at 1537.

39. *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1537 (Fed. Cir. 1987). (“[The inventor’s] failure to disclose its “six stage braze cycle” fully supports the defense of non-compliance with the best mode requirement of the first paragraph of § 112 although the inventions as broadly claimed could be practiced without knowledge of it, which means that the patent specifications are enabling.”).

40. *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931 (Fed. Cir. 1990).

41. *Id.* at 933.

42. *Id.* at 940.

43. *Id.*

44. *Id.*

45. *Id.*

46. *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 940 (Fed. Cir. 1990).

allowed a person having ordinary skill in the art to practice the invention, their existence did “not establish the best mode ‘contemplated by the inventor’”⁴⁷

Finally, in the 1997 case of *Young Dental Manf. Co., Inc. v. Q3 Special Prods., Inc.*, the Federal Circuit established a two-factor test for determining a best mode violation under 35 U.S.C. § 112.⁴⁸ The test requires both a subjective and objective analysis.⁴⁹ The subjective factor requires that the inquiring party “ask whether, at the time the patent application was filed, the inventor knew of a mode of practicing the claimed invention that he considered to be better than any other.”⁵⁰ If this factor is met, then the inquiring party must look to the objective factor to “determin[e] whether the specification adequately disclosed what the inventor contemplated as the best mode so that those having ordinary skill in the art could practice it.”⁵¹ The court indicated that the adequacy of the invention disclosure would depend upon “the scope of the claimed invention and the level of skill in the art.”⁵² Additionally, the two-pronged factual inquiry would only become relevant when the best mode “would not have been apparent to one of ordinary skill in the art.”⁵³ This exception would cover all commercial considerations and routine details. *Young Dental* represents the last measure of judicial interpretation that solidified the modern best mode requirement under Section 112. It was followed by a myriad of supporting district court cases spanning the next fourteen years.⁵⁴

D. SUPPORT FOR CONSEQUENCES UNDER THE BEST MODE REQUIREMENT

Many legal scholars, legal practitioners, and business leaders have found the best mode requirement to be very valuable.⁵⁵ Various industries utilize complex processes and components to develop and implement their products. One industry in particular supports the imposition of the best mode requirement: the pharmaceutical industry. In many instances, slightly varying any of a number of delicate factors (*e.g.*, the concentration of reactants, the amount of catalysts, the temperature of a reaction vessel, or

47. *Id.* (quoting *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524 (Fed. Cir. 1987)).

48. *Young Dental Manf. Co., Inc. v. Q3 Special Prods., Inc.*, 112 F.3d 1137 (Fed. Cir. 1997).

49. *Id.* at 1147.

50. *Id.* (quoting *U.S. Gypsum Co. v. Nat'l Gypsum Co.*, 74 F.3d 1209, 1212 (Fed. Cir. 1996)).

51. *Id.*

52. *Id.* (quoting *Chemcast Corp. v. Arco Indus.*, 913 F.2d 923, 928 (Fed. Cir. 1990)).

53. *Id.*

54. *See* *Osram Sylvania, Inc. v. Am. Induction Techs., Inc.*, 2011 WL 5143630, at *12 (C.D. Cal. Oct. 28, 2011); *In re Katz Interactive Call Processing Patent Litig.*, 821 F. Supp. 2d 1135, 1161 (C.D. Cal. 2011); *McNeil-PPC, Inc. v. Perrigo Co.*, 516 F. Supp. 2d 238, 258 (S.D.N.Y. 2007); *Bayer AG v. Schein Pharm., Inc.*, 129 F. Supp. 2d 705, 723 (D.N.J. 2001).

55. *See* Wesley D. Markham, *Is Best Mode the Worst? Dueling Arguments, Empirical Analysis, and Recommendations for Reform*, 51 IDEA 129, 144–51 (2011); Selinger, *supra* note 4.

even the amount of time allowed for interaction of chemical components) can alter the pharmacological effects of many drugs. Succinctly put, “the best mode requirement leads to enhanced disclosure and innovation, minimizes strategic behavior by patentees, and benefits the generic pharmaceutical industry.”⁵⁶

The Generic Pharmaceutical Organization (“GPO”) indicated that “the public benefits from knowing the best mode because inventors do not have to ‘reinvent’ a patented invention after the patent expires.”⁵⁷ In the pharmaceutical industry, a slight variance in even one factor of manufacturing can lead to sub-optimal results in a drug’s yield or effect. A drug manufactured according to the enabling specification of a patent may have some degree of success at achieving what it was meant to do. However, without a clear best mode that eliminates any and all variations in the development of the chemical compound, the generic drug may not be as potent or effective as its patented counterpart.⁵⁸ It is for the efficacy of product development and manufacture that the Patent Office Professional Association “strongly defended the best mode requirement, arguing that best mode drives innovation and facilitates disclosure to the public.”⁵⁹ Without strong consequences for failure to disclose the best mode, other industries could seize the opportunity for “keeping the best mode a secret for commercial or strategic reasons.”⁶⁰

Removing meaningful consequences for failure to comply with the best mode requirement would be like removing the stick that keeps the horse on the path. The best mode requirement of 35 U.S.C. § 112 has two important purposes: “(1) to ensure the public receives not merely a disclosure of the invention, but the best way contemplated by the inventor of carrying out the invention; and (2) to allow the public to compete fairly with the patentee after the patent expires.”⁶¹ Without a proper consequence for failing to provide the best mode, the limited time monopoly granted to a patent holder could be extended indefinitely, effectively turning the patent into a trade secret.⁶²

The only effective way to determine whether the best mode requirement has been satisfied is to apply the two-pronged

56. Markham, *supra* note 55, at 145.

57. *Id.*

58. *Id.* at 146 (“Generic drug companies rely on brand patent disclosures to develop generic drugs, and eliminating the best mode requirement could reduce disclosure and have a negative impact on generic drug development.”).

59. *Id.* (quoting PATENT OFFICE PROF’L ASS’N, THE PATENT REFORM ACT WILL HURT, NOT HELP, THE U.S. PATENT SYSTEM 2 (Sept. 2007), <http://www.popa.org/pdf/misc/reform-popa-04sep2007.pdf>).

60. *Id.* at 145–46.

61. Selinger, *supra* note 4, at 1097 (quoting *In re Gay*, 309 F.2d 769, 773 (C.C.P.A. 1962); *Christianson v. Cold Indus. Operating Corp.*, 870 F.2d 1292, 1302 n.8 (7th Cir. 1989), *cert. denied*, 493 U.S. 822 (1989)).

62. See generally MELVIN F. JAGER, TRADE SECRETS LAW §1 (Rev. 2012) for a discussion on the application of trade secret protection to the computer development industry and on how trade secret protection makes sense for the development of many new technologies.

subjective/objective factual inquiry in a trial.⁶³ During the prosecution of the patent, the patent examiner has “no effective way to monitor a patent applicant’s compliance with the best mode requirement because the patent examiners who review the applications are not mind readers.”⁶⁴ The USPTO has recognized the inability of examiners to catch a best mode violation in the pre-AIA version of the Manual of Patent Examining Procedure (the “MPEP”):

The examiner should assume that the best mode is disclosed in the application, unless evidence is presented that is inconsistent with that assumption. It is extremely rare that a best mode rejection properly would be made in ex parte prosecution. *The information that is necessary to form the basis for a rejection based on the failure to set forth the best mode is rarely accessible to the examiner, but is generally uncovered during discovery procedures in interference, litigation, or other inter parties proceedings.*⁶⁵

This concern has been validated in the two cases discussed above: *Spectra-Physics*⁶⁶ and *Northern Telecom, Inc.*⁶⁷ Many other cases reveal inventors successfully masking the best means of creating or practicing their patented invention, only to have their would-be deception foiled by a third party stepping forward and spilling the beans.⁶⁸ Without the threat of invalidation through litigation, many more companies would likely be successful in attempting to shroud their inventions in secrecy, thereby maintaining an iron grip on the best or most profitable iteration of their patented product.

In the past, governmental organizations have claimed that the best mode requirement creates “undue cost and delay and should therefore be eliminated.”⁶⁹ Yet one scholar’s viewpoint on the best mode requirement cuts in the opposite direction, holding the availability of a full disclosure to the public above two practical considerations: (1) that the best mode is more difficult to enforce during the application examination period; and (2) that it adds an unnecessary burden to any inventor seeking to protect his or her work.⁷⁰ Because patent monopolies benefit the public at large, it is

63. Markham, *supra* note 55, at 147 (“Essentially, if a dishonest inventor decides to obtain a patent while keeping the best part of the claimed invention for himself, discovery during an adversarial proceeding such as litigation provides the only check on this underhanded behavior.”).

64. *Id.*

65. U.S. DEPT. OF COMMERCE, PATENT AND TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 2165.03 (8th ed. Rev. 6, 2007) (emphasis added).

66. *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1536 (Fed. Cir. 1987).

67. *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 940–41 (Fed. Cir. 1990).

68. For example, the employee in the case of *Spectra-Physics* who indicated that the best mode was not disclosed in the patent application during prosecution. *Id.* at 940.

69. Selinger, *supra* note 4, at 1098 (discussing THE ADVISORY COMM’N ON PATENT LAW REFORM, A REPORT TO THE SECRETARY OF COMMERCE 100–03 (1992) (advising under Recommendation V-G(i) that the best mode obligation be eliminated)).

70. *Id.* at 1100–01 (“The Advisory Commission’s conclusion that best mode should be abolished because it is not considered during examination, however, is not logically derived. If the Patent Office is not adequately equipped to determine best mode compliance, then it does not follow that best mode should be eliminated. Instead, courts must be empowered to review patents for compliance. The alternative solution suggested by the Advisory

understandable that the costs of losing the best way of enabling an invention outweigh the benefits of time and money saved by skipping over the disclosure. Granting monopolies incentivizes development by guaranteeing some measure of return on investment, while the strict time limitation of the monopoly increases the benefit to the public and balances concerns about inventors retaining an unfair advantage in the marketplace. If a specific method of development or manufacture created a marketplace advantage based on information asymmetry, then the time limit of the exclusionary right afforded by the government would not be fairly enforced.⁷¹

In terms of a more concrete cost-benefit analysis vis-à-vis litigation, the costs of conducting extended discovery for a patent infringement case would not change, and the inquiry would still “encompass the facts pertinent to best mode analysis.”⁷² Additionally, empirical evidence demonstrates that imposing the best mode invalidation defense is a small cost in most trials, with United States district courts discussing the challenge in only 0.6% of cases.⁷³ Although the occurrence is seemingly rare, the threat of total patent invalidation for failing to disclose the best mode requirement is necessary to promote the clearest disclosure by any inventor seeking a patent. Without a real consequence, the best mode requirement becomes meaningless to inventors who would conceal important but non-essential details in their patent applications.

Overall, the best mode is the absolute best way of practicing, using, or creating the patented invention. Without the best mode, practitioners familiar with the field may be able to utilize or adapt the patented invention, but they may never be able to fully reproduce the claimed invention. This potential uncertainty is a problem for many industries. In order to remain competitive in the market place, products often require the same or better means of performance. Meeting this stringent performance requirement may be prohibitively expensive for new competitors who would have to experimentally determine the best mode of a product or device on their own.

Commission Report—eliminating the disclosure obligation—does not sufficiently account for the consequences to the public.”).

71. *Id.* at 1102 (“[W]hen an inventor intentionally conceals the best mode of his invention, the public does not receive the full benefit of its bargain. The patentee nevertheless enjoys exclusionary rights over the patented invention even though he has not acted in good faith.”).

72. *Id.* at 1101.

73. Markham, *supra* note 55, at 150 (“In the author’s study of reported U.S. district court patent cases from 2005 through 2009, the courts discussed a best mode challenge in only fifty out of 7891 cases, or 0.6% of the cases. In other words, the outcome of a patent lawsuit only depends on best mode issues in a small fraction of cases.”).

II. THE RECENT CHANGES TO THE BEST MODE REQUIREMENT

A. COMPARISON OF OLD AND NEW BEST MODE STATUTES—EXACERBATION OF THE “PATENT TRILEMMA”

Prior to the changes implemented by the Leahy-Smith America Invents Act on September 16, 2011, the relevant first paragraph of 35 U.S.C. § 112 stated:

*The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.*⁷⁴

This first paragraph of Section 112 was not altered by the AIA, and the best mode requirement remains intact.⁷⁵ In contrast, the consequences for violating the best mode requirement have been dramatically altered, incentivizing the use of deceptive tactics to obfuscate the patent’s ability to teach the disclosed invention.

Prior to the introduction of the AIA, 35 U.S.C. § 282 allowed for the invalidation of a patent if it failed to comply with any of the Section 112 enablement requirements, including best mode.⁷⁶ After the AIA, Section 282 no longer presents the possibility of patent invalidation for a best mode violation:

The following shall be defenses in any action involving the validity or infringement of a patent and shall be pleaded:

...

(3) Invalidity of the patent or any claim in suit for failure to comply with—

(A) any requirement of section 112, except that the failure to disclose the best mode shall not be a basis on which any claim of a patent may be canceled or held invalid or otherwise unenforceable⁷⁷

This added exception removes any teeth that the Section 112 best mode requirement once had. Mandating the inclusion of the best mode but not punishing the inventor for failing to include it places a burden on the attorney to simultaneously accomplish their client’s goals and provide a complete level of disclosure to the USPTO.

This burden can be characterized as an ethical “Patent Trilemma.” The attorney must balance the need to ensure candid discourse on the part of the inventor (in order to properly define the boundaries of the claimed invention), the need to maintain the client’s confidences and provide the most zealous representation possible (to obtain the broadest level of

74. 35 U.S.C. § 112 (2006) (emphasis added).

75. See 35 U.S.C. § 112 (2012), amended by Pub. L. 112–29, § 4(c), (e), 125 Stat. 296, 297 (2011).

76. 35 U.S.C. § 282 (2006).

77. 35 U.S.C. § 282 (2012), amended by Pub. L. 112–29, § 20(g), (l), 125 Stat. 334, 335 (2011) (emphasis added).

patentable subject matter for the benefit of the client's exclusionary right), and the duty of candor to the USPTO during the prosecution of the patent (as mandated by statute and regulation).⁷⁸

Without the ability to enforce consequences for the violation of a statutory requirement, the best mode requirement becomes pointless and ineffective. The most probable result that follows from the removal of invalidity as a consequence of a violation is that inventors will pay no heed to the requirement. The only likely means of redress for such a violation of the best mode requirement will have to come in the form of an inequitable conduct inquiry.

B. COMPARISON TO THE "PERJURY TRILEMMA"

The "Perjury Trilemma," as described by Monroe H. Freedman, springs from three conflicting simultaneous obligations: (1) in order to give clients effective assistance of counsel, lawyers are required to have all of the relevant facts in front of them when creating their plan,⁷⁹ and they must abide by a client's decisions;⁸⁰ (2) in order for clients to feel comfortable with disclosing all of the necessary information for the lawyer to do his/her job, the lawyer is under an ethical duty to maintain that information in strict confidence;⁸¹ and (3) the lawyer must be candid with the court.⁸² Professor Freedman discusses this conundrum with relation to the disclosure of facts in a trial and therefore draws on examples from clients that are involved in criminal proceedings.⁸³ Here, the rules underlying attorneys' ethical conduct work against each other in a way that hinders the ability of lawyers to operate without worrying about ethical sanctions.⁸⁴

The problem Professor Freedman envisions can only occur when there is a client that perjures or that wants the attorney to assist in future omissions or acts of perjury. Not every situation meets these unique criteria, but criminal law cases can often lead to the trilemma problem for defense attorneys. Clients facing harsh sentencing punishments have an incentive to alter or hide important facts if they feel that their attorney may "rat on them" to the court. Keeping a particularly damning fact secret may lead to a criminal defendant's release if there is nothing else to base the case on, and therefore the client may choose to be "selectively ignorant."⁸⁵

On the other hand, defense counselors want to ensure that they have every single shred of evidence from the client in order to properly plan a robust defense. For example, without knowing the precise sequence of events that led to a murder, the defense counselor may not be able to plan

78. Duty to Disclose Information Material to Patentability, 37 C.F.R. § 1.56 (2012).

79. See MODEL RULES OF PROF'L CONDUCT R. 1.1 (2002).

80. See MODEL RULES OF PROF'L CONDUCT R. 1.2 (2002).

81. See MODEL RULES OF PROF'L CONDUCT R. 1.6 (2002).

82. See MODEL RULES OF PROF'L CONDUCT R. 3.3 (2009); Freedman, *supra* note 12.

83. See Freedman, *supra* note 12, at 163.

84. See *id.*

85. *Id.* at 159–60.

for an affirmative defense or properly list mitigating factors that could save the client's life at the sentencing phase. Should the attorney get a full disclosure from the client of facts that contradict testimony, the attorney would need to reveal those key facts to the court over the client's protestations.

This ethical tangle resonates especially well with the recent changes to the best mode requirement, as all three obligations facing defense counselors are also present for patent prosecutors. First, patent prosecution attorneys want complete disclosure from their clients when drafting patent applications because the only way to properly define the boundaries of the invention is by having all of the facts and explanations. Patent attorneys must also follow the decisions of their clients regarding the scope of the invention's proposed patent claims. The protected area under the claimed patentable boundaries begins with the client's goals regarding the patent itself. Should the client want a broad patent that can be used as a base for controlling a large subject matter area, the patent attorney would be under a client's mandate to draft an application that covers the widest breadth of claims and contains the most general written description possible.

Second, clients who want to protect their inventions beyond the limited time frame of the patent may realize that if something small were to be left out of the written description, their patent may not properly teach the technology they want to protect. Without a properly teaching description, their product could potentially maintain a marketplace advantage, allowing them to enjoy a monopoly longer than the time allotted to a piece of patented technology (usually about twenty years).⁸⁶ This would be very lucrative for many types of pharmaceutical companies because of the high cost associated with the initial development of drugs that bars entry into the marketplace. Clients seeking protection for their invention by obscuring the best mode would only disclose such a plan if they were certain their attorney would maintain the sensitive information in strict confidence. A client should disclose all available information to his or her attorney so that the attorney is fully prepared when arguing for patent allowance with the USPTO examiner. However, a client may hold back information for fear of a breach of confidentiality by the attorney.

Finally, patent prosecutors are required to disclose everything they deem related to the patentability of the invention to the UPSTO examiner. Section 112 still mandates disclosure of the best mode. Deliberately withholding information like the best mode could lead to a finding of inequitable conduct (which requires a substantial factual determination in a disciplinary hearing). The key for any practitioner faced with this trilemma is to look at comparable ethics rules and scholarly commentary on the subject and come to a decision that fits his or her particular set of circumstances. Considering the "Perjury Trilemma" alongside the "Patent Trilemma" could give patent attorneys a clearer indication of how to act

86. See 35 U.S.C. § 154 (2006).

when faced with this situation.

1. The Ethical Rules at Issue

This comment focuses on requisite attorney conduct under the ABA Model Rules on ethics and California's specific ethical rules. While multitudes of slightly varying ethical rules exist, the foundations of the "Perjury Trilemma" can apply to almost any ethical mandate.

A number of ABA Model Rules and California-based rules apply to the "Perjury Trilemma." Every one of those rules may be applied with equal relevancy to the "Patent Trilemma," so that practitioners may discern the best course of action. The ABA Model Rules present some guidance for the practitioner beguiled by the trilemma, but the rules hinge upon whether the attorney knows the evidence being presented is actually false.⁸⁷ Still, ABA Model Rule 3.3 and its related formal opinions are decidedly relevant in determining how best to protect the confidences of the client while still maintaining candor with the court. ABA Model Rule 3.3(a)(3) states:

(a) A lawyer shall not knowingly:

(1) Make a false statement of fact or law to a tribunal or fail to correct a false statement of material fact or law previously made to the tribunal by the lawyer; . . . or

(3) Offer evidence that the lawyer knows to be false. If a lawyer, the lawyer's client, or a witness called by the lawyer, has offered material evidence and the lawyer comes to know of its falsity, the lawyer shall take reasonable remedial measures, including, if necessary, disclosure to the tribunal. A lawyer may refuse to offer evidence, other than the testimony of a defendant in a criminal matter that the lawyer reasonably believes is false.⁸⁸

In Formal Opinion 87-353, the ABA looked at Rule 3.3 and determined that the lawyer's duty to provide candor to the court only activates when the attorney knows the information provided is false.⁸⁹ Essentially, should an attorney not disclose that evidence is known to be false, the attorney will face ethical sanctions under ABA Model Rule 3.3.⁹⁰ The problem with this, as illuminated by the ABA's own assessment under Formal Opinion 87-353, is that as long as the client is "selectively ignorant" in disclosures with his or her lawyer, there is no way to attack the attorney under the Model Rules.⁹¹

Professor Freedman indicated that this was a particularly poor outcome, because the main focus of our justice system should be to maintain the confidences found in the attorney-client relationship.⁹² He stated that only "by allowing the lawyers to be less than candid with the court when necessary to protect clients' confidences—can we maintain the

87. MODEL RULES OF PROF'L CONDUCT R. 3.3(a)(3) (2006) (Disclosure is only required when the attorney "*knowingly* offers evidence that the lawyer *knows to be false*." (emphasis added).

88. MODEL RULES OF PROF'L CONDUCT R. 3.3(a) (2006) (emphasis added).

89. ABA Comm. on Ethics and Prof'l Responsibility, Formal Op. 87-353 (1987).

90. *Id.*

91. *See id.*

92. *See* Freedman, *supra* note 12, at 129, 169–70.

traditional lawyer-client model.”⁹³ His assessment would hold confidentiality under ABA Model Rule 1.6 as a higher duty than candor to the court and deem full disclosure from a client as essential for the attorney to do his or her job.⁹⁴

Confidentiality is the bedrock principal that allows for a healthy relationship between a client and their attorney. Comment [2] of Rule 1.6 states that “[a] fundamental principle in the client-lawyer relationship is that, in the absence of the client’s informed consent, the lawyer must not reveal information relating to the representation.”⁹⁵ However, the ABA cemented its view of maintaining candor to the court as the primary duty by including part (c) in Model Rule 3.3: “The duties stated in paragraphs (a) and (b) continue to the conclusion of the proceeding, and apply even if compliance requires disclosure of information otherwise protected by Rule 1.6.”⁹⁶ According to the ABA Model Rules, a patent practitioner would need to ensure complete disclosure of the best mode to the UPSTO examiner in order to avoid an ethical sanction, assuming of course that he or she knew of both the false information and that ABA Model Rules were applicable in patent proceedings.

In California, a number of state regulations relate to the trilemma. California Business and Professions Code §§ 6068(d)–(e) indicate that attorneys should only employ means that are consistent with the truth, but that they must also strictly maintain the confidence of the client.⁹⁷ This contradiction potentially burdens the attorney with a client that may keep some information secret, and with the possibility of ethical sanctions for not maintaining confidences or candor. Instead of simply mirroring the ABA’s decision to fall on the side of candor when the attorney knows information is false or omitted, California allows attorneys to fix the problem themselves or withdraw.⁹⁸ This means that attorneys are not absolutely obligated to break confidences at the first sign of perjury, thereby allowing for more of the flexible and robust attorney-client relationship that Professor Freedman advocates.

Allowing attorneys to solve the problem on their own seems to be the most effective and reasonable solution in the case of the “Patent Trilemma.” In such a situation, the attorney is actively arguing with the examiner for the issuance of a patent. If it were possible for an attorney to successfully argue that the best mode requirement need not be fulfilled in

93. *Id.* at 161.

94. *See generally* MODEL RULES OF PROF’L CONDUCT R. 1.6(a) (2006) (“A lawyer shall not reveal information relating to the representation of a client unless the client gives informed consent . . .”).

95. MODEL RULES OF PROF’L CONDUCT R. 1.6, cmt. [2] (2006).

96. MODEL RULES OF PROF’L CONDUCT R. 3.3(c) (2006).

97. *See* CAL. BUS. & PROF. CODE §§ 6068(d)–(e) (Attorneys are required “[t]o employ . . . means only as are consistent with truth . . .” and “[t]o maintain inviolate the confidence, and at every peril to himself or herself to preserve the secrets, of his or her client.”).

98. *See* State Bar of Cal. Standing Comm. on Prof’l Responsibility and Ethics, Formal Op. 1983-74 (1983).

certain situations, then there would be no need to maintain an absolute standard of disclosure to the examiner, even if the attorney were aware of a client's surreptitious intentions.

California's ideal for balancing candor and confidentiality aligns with Professor Freedman's ideal of promoting a healthy attorney-client relationship. The client would be encouraged to not only disclose every shred of information, but also the plan to keep the best mode a secret. The attorney could therefore argue in good faith around the requirement with the USPTO. The lawyer-client relationship would enjoy a fuller level of openness, and the examining body of the USPTO would be able to assess the practitioner's arguments for skirting the disclosure of the best mode. Subverting the best mode requirement by attempting to argue around it with the examiner may not be considered wholly ethical, but it at least gives practitioners some idea of how they could act when faced with the trilemma issue.

C. RATIONALE FOR THE CHANGE AND CRITICISM OF THE BEST MODE REQUIREMENT

The change to the best mode requirement was made alongside a raft of improvements to the United States patent system. The U.S. House of Representatives Committee on the Judiciary stated that "[m]uch-needed reforms to our patent system are long overdue Our outdated patent system has been a barrier to innovation, unnecessarily delaying American inventors from marketing new products and creating jobs for American workers."⁹⁹

The need to reform the patent legal system pressed on legislators from every angle, including the need to limit patent troll activity, expedite patent prosecution timing, and streamline patent litigation by eliminating variable subjective considerations.¹⁰⁰ The solutions presented by the AIA include introducing post-grant opposition proceedings, changing the fee structure for many services rendered by the USPTO, introducing the significant shift to a first-to-file system, and altering the best mode requirement to limit its use in a litigation setting.¹⁰¹

Many parties have indicated that the use of the best mode requirement increases the costs of litigation.¹⁰² The House Committee on the Judiciary succinctly outlined three main criticisms levied at the requirement:

99. H.R. COMM. ON THE JUDICIARY, AMERICA INVENTS ACT OF 2011 (2011), available at http://judiciary.house.gov/issues/issues_patentreformact2011.html [hereinafter H.R. COMM. ON THE JUDICIARY].

100. See Rep. Lamar Smith, *Meaningful Patent Reform a Must*, POLITICO (Feb. 11, 2011), <http://www.politico.com/news/stories/0211/49251.html>.

101. William Hannah, *Major Change, New Chapter: How Inter Partes Review and Post Grant Review Proceedings Created by the America Invents Act Will Shape Litigation Strategies*, 17 INTELL. PROP. L. BULL. 27 (2012) (describing new post-grant review procedures and their practical impact).

102. See Markham, *supra* note 55, at 147–50; Vacca, *supra* note 1, at 288; Walmsley, *supra* note 5, at 157.

First, because of the subjective nature of the inquiry, a best mode defense significantly increases the cost and complexity of litigation. Second, since the best mode requirement only applies to what the inventor knew at the time of filing, the best mode disclosed in a patent may be obsolete by the time litigation occurs. Finally, the best mode requirement adds additional expense to international filings because foreign applicants seeking to protect their inventions in the U.S. must amend their applications to comply with a best mode requirement unnecessary anywhere else.¹⁰³

The final critique, regarding the increase in costs to international applicants filing in the U.S., is beyond the scope of this comment. This comment focuses on the first two critiques that legislators used to support the removal of consequences in litigation for violating the best mode requirement.

The Committee's first criticism of the requirement is that the two-pronged fact-sensitive nature of the best mode test unreasonably raises the costs of litigation.¹⁰⁴ This concern was voiced at least as far back as 1992, in a Congressional Advisory Commission Report that classified the best mode requirement as "creat[ing] a disproportionate effect on costs and delays during patent litigation without providing a corresponding public benefit" and declared that it should therefore be removed.¹⁰⁵ The costs and delays referred to by the Committee are those that result from an extended discovery period preceding trial.¹⁰⁶ The rationale is that because the USPTO does not consider the best mode requirement during the prosecution phase, the party claiming the best mode defense must build an entirely new evidentiary case.

It is argued that the added time and effort required to seek out the necessary factual evidence to form the basis of a best mode challenge is too burdensome to be worth the benefit of preventing inventors from maintaining an invention's secrecy past the point of disclosure.¹⁰⁷ The problem with that line of reasoning,¹⁰⁸ is that the costs of discovery would remain unchanged regardless of the level of certainty that the best mode had been disclosed during the application process.¹⁰⁹ The subjective belief of the patent holder, at the time the application was filed, would still be

103. Markham, *supra* note 55, at 157–58 (referring to H.R. REP. NO. 110–314, at 43–44 (2007)).

104. *Id.* at 157.

105. Selinger, *supra* note 4, at 1098 (citing THE ADVISORY COMM'N ON PATENT LAW REFORM, A REPORT TO THE SECRETARY OF COMMERCE 100–03 (1992) (Recommendation V-G)).

106. *Id.* at 1101–02.

107. See BD. ON SCI., TECH., AND ECON. POLICY ET AL., A PATENT SYSTEM FOR THE 21ST CENTURY 121 (Stephen A. Merrill et al. eds., 2004), available at <http://www.nap.edu/catalog/10976.html>.

108. See Part I.D *supra*.

109. See Markham, *supra* note 55, at 142–43 (“[N]either the NRC, nor any other party, has provided evidence definitively linking a best mode defense to increased patent litigation costs. Some best mode proponents argue that routine discovery will likely encompass facts relevant to a best mode violation, so eliminating the best mode requirement will not reduce discovery costs.” (citing Selinger, *supra* note 4, at 1101)).

encompassed by the myriad of discovery requests necessary to flesh-out other aspects of an infringement defense, such as the inventor's knowledge of anticipatory prior art, or a sale/use of their product more than a year before the priority date for the application.

Additionally, the fact-sensitive analysis underlying every best mode challenge has been "erratically defined by the courts."¹¹⁰ The uncertainty stemming from an inconsistent judicial analysis could cause apprehension on the part of litigators, but it is unclear how that would actually increase costs, given the fact that litigation teams would spend the same amount of time researching the facts necessary to either support or contest the challenge. The cost may weigh more heavily on one side in any given situation, but overall the risk of unpredictability in the outcome weighs equally on either side.

Another position critiquing the fact-sensitive nature of the requirement, cautions that "even if the inventor complies and discloses the best mode known to the inventor, this does not necessarily mean that the best mode, in an objective sense, will be revealed to the public."¹¹¹ Since compliance with the requirement is based on a subjective inquiry, the judgment would have to effectively ascertain what was in the mind of the inventor at the time of filing. This also means that what was in the mind of the inventor as the "best mode" was actually the absolute best mode for practicing the patented invention.

The reason this critique falls flat is because it deals with the potential efficacy of the best mode requirement in terms of what would present the best objective result for the public in general. The best mode was created to provide the public with what the inventor thought was the best available means for creating or practicing the invention at hand,¹¹² and therefore the inadequacy of the requirement to provide the best objective benefit to society should not be considered as a failing. The nature of invention is that technology is constantly changing, developing, and evolving; therefore, there could logically be no single best absolute method for practicing a particular invention. The best mode requirement is about keeping inventors honest, and ensuring that a known advantage does not translate to a trade secret after the expiration of a patent term.

The Committee's second criticism of the best mode requirement is that "changes in technology may result in an outdated best mode before the end of the patent term."¹¹³ This means that critics view the speed of developing technology as being so fast, and the application process for patents as being so relatively slow, that the disclosure of the best mode is superfluous in many cases. One industry that critics often focus on is the computer software and hardware development industry, which has been

110. Walmsley, *supra* note 5, at 156.

111. Vacca, *supra* note 1, at 288 (citing THE ADVISORY COMM'N ON PATENT LAW REFORM, A REPORT TO THE SECRETARY OF COMMERCE 102 (1992)).

112. See Markham, *supra* note 55, at 137.

113. *Id.*

known for the speed of its development of new technologies.¹¹⁴

However, the speed of technological development should remain a moot point for the disclosure of the best mode, simply because the requirement prevents the retention of information that should be given to the public in exchange for a government-granted right of exclusion. Should technology develop past the point of an application's disclosed best mode, it does not mean that the initial disclosure was a waste. It would be better to spend the miniscule amount of time defining a precise set of parameters, a particular reactive agent, or even a specific type of copper flux, rather than allowing an inventor to conceal something that would contradict the underlying policy balance of patent law.

Disposing of a valuable check on the amount of knowledge kept from the public, based on the conjecture that technology might render it moot at an undefined point in the future, is unwise if only because there is no telling what the future will bring. In the end, the decision to remove any means of assessing whether an inventor had properly satisfied the best mode requirement was made because legislators "hoped to reduce litigation costs, discourage strategic behavior, and promote disclosure for the benefit of the public."¹¹⁵

D. THE PURPOSE OF PATENT LAW PROMOTES DISCLOSURE TO THE EXAMINER

In terms of the patent application process, one must look to the underlying principle that patents are provided to inventors to stimulate the progress of science and useful arts in the United States.¹¹⁶ The government is loath to accept any type of monopoly, but patents afford a state-sanctioned monopoly of limited term in order for inventors to recoup the costs associated with the development of new technology. In order to gain the monopoly, the inventor must pierce the veil of secrecy that surrounds the new technology and enable those practitioners skilled in the art to practice the invention themselves.

The policy underlying patents may point an attorney faced with the "Patent Trilemma" problem towards disclosure. This is because the main exchange that allows for these government-sanctioned monopolies is that the technology is fully disclosed to the public. The patent attorney must always promote the interests of their client, but the overall goal of any patent attorney should be in-line with the underlying goal of patent law: to stimulate ingenuity and invention. Should an attorney be faced with a client that seeks to improperly gain invention protection beyond the time limit

114. *Id.* ("This is especially true in industries such as computer software and hardware where technology advances so quickly that even if the inventor disclosed the best mode at the time the application was filed it is quite likely, if not inevitable, that by the time the patent expires the technology will have changed dramatically and rendered the disclosed best mode a relic.")

115. Markham, *supra* note 55, at 158.

116. U.S. CONST. art. 1, § 8, cl. 8.

afforded by the USPTO, the only way for them to stay in-line with the goal of patent law (if they actually wanted to) would be to disclose the best mode to the examiner.

My assertion has more in common with the ABA Model Rules commentary than Professor Freedman's assessment, because I argue that the underlying purpose of patent law is centered on providing disclosure, instead of promoting healthy attorney-client relationships. I also believe that patent attorneys should strive to promote the underlying ideals supporting patent law. Failing to properly support the ideals of patent law could lead to a system where patents themselves would be watered-down in a sea of ambiguity and secrecy, thus making the entire system useless for giving the public the benefit of inventions in the long-term.

In an adversarial criminal trial (like the one Freedman focuses on in his examples), forthright communication between clients and their attorneys results in dramatic life-or-death differences and supports the idea that our justice system is based on the adversarial-nature of the trial setting. While it is true that patent attorneys argue with examiners to define the scope of a patent's claims, dealing with the USPTO is more like a prolonged negotiation than an adversarial showdown. The examiner is not diametrically opposed to the patent attorney, but is simply assuring that the claimed invention does not impinge upon any other invention. Following the ideal that disclosure by the attorney is optimal, any patent attorney that knows the best mode for practicing an invention should follow the ABA advisory opinions and disclose it to the examiner.

III. IMPLICATIONS OF THE AIA CHANGE TO BEST MODE ENFORCEMENT

After the removal of invalidity and claim cancellation enforcement of the best mode requirement, the question going forward is how can we ensure that the best mode for practicing an invention is still disclosed by inventors? It is clear that the best mode is essential,¹¹⁷ but the removal of any means for finding invalidity also removes a punishment that would otherwise prevent applicants from maintaining secrets. The desire for keeping best mode a secret has always existed, but the recent removal of invalidity will bring the patent attorney's ethical dilemma to the forefront of patent prosecution cases. Should an inventor obfuscate a particular setting, material, or component that would provide a better end result while practicing their invention, a patent attorney would be faced with the dilemma of either going along with the concealment or contradicting her client's wishes. If the attorney keeps the best mode a secret, the resulting penalty would be a claim of inequitable conduct, which puts both the patent

117. See Part I.D *supra* for a discussion on the particularly acute need for the disclosure of the best mode in industries that utilize precise measurements and settings when creating products, such as the pharmaceutical industry.

and the attorney's livelihood at risk.¹¹⁸

A. MORE INVENTORS WILL WANT TO KEEP THE BEST MODE HIDDEN

There are already many examples where inventors have tried to obtain a patent through the use of an enabling, but not comprehensive, disclosure. The two Federal Circuit cases discussed earlier in Part I.B demonstrate how inventors have already tried to retain an advantage in the marketplace, even after being granted a government-approved monopoly. These two cases are far from unique; there have been many more examples of inventors attempting to limit the boundaries of their disclosures, even though they are aware of a clearly superior means for practicing the patented invention.

In *Dana Corp. v. IPC Ltd. Partnership*, the inventor enabled their invention through the use of a commonly known rubberized seal, however the inventor knew about the existence of a better type of treated seal, which had already been used in one of his products.¹¹⁹ In *Trans-World Display Corp. v. Mechtronics Corp.* the inventor enabled his partition invention, but failed to disclose the important sawtooth and detent design features, which were considered “an extremely important feature of the dispenser.”¹²⁰ The partition could still be built, but the advantage in stability offered by the undisclosed design elements would be crucial for anyone in the public wanting to make a comparable type of dispenser.¹²¹ Finally, in *Engelhard Indus., Inc. v. Sel-Rex Corp.*, the inventor had patented a method for gold plating ductile surfaces, a complex electrochemical process involving a host of variables that must be managed precisely.¹²² The examples cited in the specification disclosed reaction settings for practicing the invention, but the best possible settings used by the inventor were kept secret. The District Court agreed with the defendant, in that “the examples in the patent do disclose a bath and a process which are operative, although admittedly conditions of higher temperature and lower current density will give far better results.”¹²³ These three cases exemplify the idea that if an invention uses a complex manufacturing protocols or specialized components for optimal results, inventors will attempt to hide any such knowledge in order to maintain the superiority of their products in the marketplace.

These examples existed long before any AIA changes were implemented, which indicates that even the real threat of patent invalidity would not hinder the pursuit of obtaining a dishonest market advantage. A reduction in the potential for penalization means a reduction in the risk of

118. See 37 C.F.R. § 1.56 (2012).

119. *Dana Corp. v. IPC Ltd. Partnership*, 860 F.2d 415, 418–19 (Fed. Cir. 1988), cert. denied, 490 U.S. 1067 (1989).

120. *Trans-World Display Corp. v. Mechtronics Corp.*, 437 F. Supp. 692, 702 (S.D.N.Y. 1977).

121. *Id.*

122. *Engelhard Indus., Inc. v. Sel-Rex Corp.*, 253 F. Supp. 832, 833–37 (D.N.J. 1966).

123. *Id.* at 836.

receiving a negative result from failure to follow the rules. As shown, there is less incentive to disclose the best mode than ever before, which means there is an even greater chance that the public will not receive the rightful benefit of a best mode disclosure after the expiration of a patent.

B. PATENT ATTORNEYS WILL BE SUBJECT TO MORE ETHICAL DISCIPLINARY ACTIONS

Realistically, “arguing around” a disclosure of best mode would be nearly impossible.¹²⁴ If enough information was disclosed by the attorney, the examiner would undoubtedly be able to inquire as to the best mode for practicing the invention, given that examiners are experts in the invention’s field. By disallowing invalidity to follow a best mode violation the only punishment for obscuring the best mode is a finding of inequitable conduct against the inventor’s patent attorney.¹²⁵

Inequitable conduct springs from the mandate issued by 37 C.F.R. § 1.56(a), which states that “[e]ach individual associated with the filing and prosecution of a patent application has a duty of candor and good faith.”¹²⁶ This broadly-written statute is the basis for the three later regulations that specifically disclose what it means for an attorney to violate the prohibition against inequitable conduct: (1) engaging in “disreputable or gross misconduct,”¹²⁷ (2) engaging in “conduct involving dishonesty, fraud, deceit, or misrepresentation,”¹²⁸ and (3) engaging in “conduct that is prejudicial to the administration of justice.”¹²⁹

Deliberately failing to disclose the best mode requirement could be grounds for a determination of inequitable conduct under any of the three specific provisions above. This would result in placing the offending attorney in a disciplinary action with the Office of Enrollment and Discipline.¹³⁰ This consequence would not fall on the inventor who originally suggested such conduct, but it could irreparably damage the career of those attorneys who would attempt to provide comprehensive support for their clients. If a large client should expect concealment of the best mode, because of the low risk of invalidity, then it is the attorney who would bear the punishment should the strategic action be discovered.

Inequitable conduct can only be found when the party asserting the defense initially proves “materiality and intent by clear and convincing evidence.”¹³¹ This means there must be some clear and convincing fact

124. See *supra* Part II.B.1.

125. Vacca, *supra* note 1, at 299 (“In addition to criminal prosecutions under the FSS, enforcement of best mode concealments might be done via disciplinary action against the applicant’s patent attorney or agent.”).

126. 37 C.F.R. § 1.56(a) (2012).

127. § 10.23(a).

128. § 10.23(b)(4).

129. § 10.23(b)(5).

130. §§ 10.20(b), 10.23(a)–(c)(10).

131. *Purdue Pharma L.P. v. Endo Pharms. Inc.*, 438 F.3d 1123, 1129 (Fed. Cir. 2006).

demonstrating that the conduct occurred and that the party in question knew about the inequitable nature of their conduct. After a threshold determination of both factors, the court must perform a balancing test given the facts presented.¹³² The Federal Circuit has clarified that “a [district] court must weigh the evidence of intent to deceive independent of its analysis of materiality,”¹³³ and that the intent inquiry requires “the accused infringer [to] prove that the patentee acted with the specific intent to deceive the PTO.”¹³⁴ The entire inquiry is highly dependent on the facts presented by both sides of the action, and would involve a considerable amount of time spent in discovery and in briefing responses. One commentator was so concerned by the threat of an inequitable conduct complaint being filed, that he advised patent applicants to “remain vigilant in abiding by the duty of candor and good faith in their interactions with the USPTO.”¹³⁵

A practical component of having penalties only resulting from a finding of inequitable conduct is that the party filing the motion would still need to have the evidence that could support the finding. This type of evidence is every bit as difficult to obtain as evidence indicating that an inventor failed to disclose a known best mode, and “the [National Research Council’s] own study suggests that patent practitioners see willful infringement and inequitable conduct as the main litigation cost drivers, with best mode falling far behind.”¹³⁶ This means that the “high” costs spurring the revision of the best mode requirement are not eliminated by the change.

The first line of defense against a finding of inequitable conduct would be for patent attorneys to advise their clients that the best mode must be disclosed otherwise the attorney will not continue to prosecute the client’s patents. However, there could be clients who deliberately fail to disclose the best mode to even their prosecuting attorneys, which could still lead to some form of inequitable conduct inquiry. In such a situation there could be no finding of inequitable conduct on the part of the attorney, but the discovery process and time spent on defending against the accusation would burden attorneys with superfluous matters. Should patent attorneys follow my reasoning¹³⁷ and promote the disclosure of the best mode, clients may default to hiding information from their attorneys. This would only further patent attorneys’ costs of repeatedly defending against inequitable

132. *Id.* at 1128–29 (“[T]he trial court must weigh them to determine whether the equities warrant a conclusion that inequitable conduct occurred. This requires a careful balancing: when the misrepresentation or withheld information is highly material, a lesser quantum of proof is needed to establish the requisite intent. In contrast, the less material the information, the greater the proof must be.”).

133. *See generally* *Therasense, Inc. v. Becton, Dickinson and Co.*, 649 F.3d 1276, 1287 (Fed. Cir. 2011).

134. *Id.* at 1290.

135. Monte R. Rhodes, *Strategies for Defending Pharmaceutical Patents During Prosecution and in Litigation*, *LANDSLIDE*, Jan.—Feb. 2012, at 15, 16.

136. Markham, *supra* note 55, at 143–44.

137. *See infra* Part II.D.

conduct motions, because initially they would have to defend their disclosures made during the course of the patent application process.

1. Inequitable Conduct or State Ethical Violation?

Conduct involving deceit is one of the top ten IP ethics violations resulting in discipline by the USPTO.¹³⁸ Failure to disclose a known best mode in a patent application falls under this category. Since the attorneys carry on conduct with the USPTO directly, it is clear that the USPTO may discipline patent attorneys for violating the Code of Federal Regulations that govern their conduct.¹³⁹ Patent attorneys may also be subject to the ethical provisions of their home state when conducting themselves, but what would happen in the case that the USPTO rule overlaps with a state ethical rule?

Resolution of the conflict could depend on whether the PTO Code preempts state law, but it is currently unclear whether courts would preempt state ethics rules in the best mode context. In this situation, it would be best for practitioners to act as if they were subject to all ethical/conduct-related regulations mandated by their state and the USPTO. This way, they might avoid having to defend their disclosures to the patent office altogether.

C. THE PUBLIC WILL BE LEFT WITH SUBOPTIMAL DISCLOSURES AFTER PATENT TERMS EXPIRE

After patent terms expire the public will be left with disclosures that do not effectively describe the best means of producing competing products. This is an especially bad outcome for inventions that require the complete disclosure of every optimal element, such as pharmaceutical products. The time and effort required to develop pharmaceutical products incentivizes the limitation of any disclosure that would weaken an inventor's product. The practical consequence of the AIA for the drug development industry could be the inability of generic drug manufacturers to bring cheaper effective drugs to consumers after the patents on those drugs expire.

Given the large amount of cases supporting the idea that many inventors favor concealing the best mode for their inventions; industries favoring the manufacture of cheaper generic items would not be able to compete effectively with their patent-holding counterparts. If legislators had realized these consequences, then it can only stand to reason that the change was an attempt to simultaneously dodge criticism from the parties complaining of costs and the parties fighting for a stringent disclosure

138. THOMAS WARD & KARIN PETERKA, TOP TEN IP ETHICS VIOLATIONS RESULTING IN DISCIPLINE BY THE USPTO 3 (2012), available at http://www.fdml.com/pdfs/Top_10_Ethics_04302010%20v3_TAW_9-2010.pdf.

139. 35 U.S.C. § 2(b)(2)(D) (2006) (granting the Director of the USPTO authority to establish regulations to govern the conduct of agents, attorneys, or other representatives before the Office, including establishing disciplinary measures for non-compliance with those regulations).

requirement.¹⁴⁰ The resulting loss of cheaper alternatives to expired patent products would be a severe blow to the public good, and a step back from the ideals that founded patent law in the United States.

IV. LEGISLATORS SHOULD RESTORE THE REPRECUSIONS FOR FAILING TO DISCLOSE THE BEST MODE

The consequence of removing the old enforcement options for best mode is the loss of balance between limiting monopolies through public disclosure, and incentivizing technological development through the grant of a limited-time monopoly. An unfair extension of time on the monopoly granted by the government disrupts the balance and promotes the loss of overall public knowledge and competition. The only way to restore the balance would be to reinstate the pre-reform best mode requirement. Many legal commentators would dismiss this idea by pointing to old arguments regarding the inconsistency in the enforcement of best mode disclosure requirements in courtrooms,¹⁴¹ but that is a problem involving the ability of the judiciary to follow the precedent set by higher courts.

The inconsistency of judicial verdicts is a significant reason for a system of appellate courts, and the inability of lower courts to render consistent judgment should be addressed by a clear and consistent ruling from a higher court. A clear ruling from a higher court would allow lower court judges and attorneys to know how to weigh the factual inquiry for finding a best mode violation. The inequitable conduct enforcement option is no better in terms of outcome-certainty because that inquiry is also heavily based in subjective factors. Additionally, the cost of litigating best mode violations is less than those incurred from dealing with inequitable conduct violations.¹⁴² By keeping the old invalidity enforcement mechanism for best mode violations the chances of obtaining full disclosure are higher, and the possibility for attorneys to get involved with unnecessary actions involving the nature of their candor with the USPTO is eliminated.

140. Tun-Jen Chiang, *Was Congress Dumb, or Was It Lying?—A Reply to Professor Sheppard*, PATENTLYO (Sept. 29, 2011, 04:12 PM), <http://www.patentlyo.com/patent/2011/09/guest-post-was-congress-dumb-or-was-it-lying-a-reply-to-professor-sheppard.html> (“[T]he unavoidable conclusion is that Congress intends the probable consequence that patentees would not disclose the best mode. The reason for maintaining a best mode requirement on paper now seems to be to provide political cover to scream ‘but we told them to disclose the best mode!’ whenever the critics talk about lax disclosure requirements.”).

141. See Donald S. Chisum, *Best Mode Concealment and Inequitable Conduct in Patent Procurement: A Nutshell, a Review of Recent Federal Circuit Cases and a Plea for Modest Reform*, 13 SANTA CLARA COMPUTER & HIGH TECH. L.J. 277 (1997).

142. See Markham, *supra* note 55, at 143.

CONCLUSION

The best mode requirement promotes the complete disclosure of important details necessary to practice many of the world's inventions. In many cases, without knowing the precise chemical compound used in the application of a metallic coating, the exact temperature of an incubation chamber, or the right concentration to maintain a delicate chemical mixture, there can be no development of a competitive product. Without the ability to enforce any of the traditional consequences for the violation of a statutory requirement, the requirement becomes useless.

The only result that can follow from the removal of invalidity as a consequence of best mode is the complete lack of consideration many inventors will pay to the requirement. Since the only means of redressing a violation of the best mode requirement would have to come from a claim of inequitable conduct, the attorney is now tasked with being an intermediary between two competing forces: the secretive client and the inquisitive USPTO examiner. The only way out of this dilemma would be to let one side down, and according to ethics and patent commentators alike, the right side is the one providing forthright candor to the USPTO.

The AIA successfully addressed many of the problems that existed with patent law in the United States, including the ability to pursue effective post-grant oppositions to patents, outside of actual litigation.¹⁴³ However, the weakening of the best mode requirement is an unacceptable change to an otherwise effective system used to incentivize the development of new technologies. Without restoring the invalidity consequences for violating the best mode, there will be fewer ways to prevent applicants from concealing the best way to manufacture or perform their patented invention. The result will be the loss of public knowledge and the extension of government-granted monopolies through the imposition of trade secrets. Legislators must reverse this aspect of the Leahy-Smith America Invents Act, in order to restore the time limit for the exclusionary right and therefore prevent the unbalancing of the patent system.

143. See Hannah, *supra* note 101.